

No.



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

South Carolina Agriculture and Forestry Research System

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF Viable BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Tomcat'

In Testimony Whereof, I have hereunto set my hand
and caused the seal of the Plant Variety
Protection Office to be affixed at the City of
Washington, D.C. this third day of May, in the
year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
South Carolina and
(BT: 3/13/2007) Agriculture & Forestry Research System

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)
104 Barre Hall
Clemson, SC 29634

2. TEMPORARY DESIGNATION OR
EXPERIMENTAL NAME
CU 9502T

3. VARIETY NAME
Tomcat

5. TELEPHONE (include area code)
864-656-3140

PVPO NUMBER
200200229

6. FAX (include area code)
864-656-3779

FILING DATE
August 19, 2002

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF
ORGANIZATION (corporation, partnership, association, etc.)

8. IF INCORPORATED, GIVE
STATE OF INCORPORATION

9. DATE OF INCORPORATION

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)

Stephen W. Johnson
~~DLF~~ International Seeds, *_____*.
P. O. Box 229
Halsey OR 97348

FILING AND EXAMINATION
FEES:

\$ 2705

DATE *8/19/2002*

CERTIFICATION FEE:

\$ 768.00

DATE *4/10/2007*

F E E S R E C E I V E D

11. TELEPHONE (Include area code)
541-369-2251

12. FAX (Include area code)
541-369-2640

13. E-MAIL
STEVEJ@intlseed.com

14. CROP KIND (Common Name)
Tall Fescue

15. GENUS AND SPECIES NAME OF CROP

16. FAMILY NAME (Botanical)

17. IS THE VARIETY A FIRST GENERATION
HYBRID?

Festuca arundinacea

Gramineae

YES NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse.)

- a. Exhibit A. Origin and Breeding History of the Variety
- b. Exhibit B. Statement of Distinctness
- c. Exhibit C. Objective Description of Variety
- d. Exhibit D. Additional Description of the Variety (Optional)
- e. Exhibit E. Statement of the Basis of the Owner's Ownership
- f. Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)
- g. Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF
CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act)

YES (If "yes", answer items 20
and 21 below)

NO (If "no", go to item 22)

20. DOES THE OWNER SPECIFY THAT SEED OF THIS
VARIETY BE LIMITED AS TO NUMBER OF CLASSES?

IF YES, WHICH CLASSES? FOUNDATION REGISTERED CERTIFIED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS
VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

IF YES, SPECIFY THE FOUNDATION REGISTERED CERTIFIED
NUMBER 1,2,3, etc.

(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED
FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR
OTHER COUNTRIES?

YES NO

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE
FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL
PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?

YES

NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED
REFERENCE NUMBER. (Please use space indicated on reverse.)

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER

NAME (Please print or type)

James R. Fischer

SIGNATURE OF OWNER

NAME (Please print or type)

CAPACITY OR TITLE

DATE

CAPACITY OR TITLE

DATE

Dean and Director

7/25/02

Exhibit A**ORIGIN AND BREEDING HISTORY OF TOMCAT (CU 9502T) TALL FESCUE**

Tomcat tall fescue (*Festuca arundinacea* Schreb.) is a turf type cultivar developed from the maternal progeny of 21 clones. Parental clones were selected from a breeding program initiated at Clemson University in 1989 to improve tolerance to drought, high temperatures and brown patch disease caused by *Rhizoctonia solani* Kuhn in tall fescue.

In November 1989, 144 seedlings from each of ten cultivars (Arid, Aztec, Bonsai, Cimmaron, Emperor, Jaguar II, Olympic Trailblazer, Twilight and Wrangler) and 1,500 seedlings from open-pollinated germplasm related to Rebel were germinated in the greenhouse. In March 1990 plants with multiple tillers were transplanted into a spaced plant nursery that was mowed at 1.5 inches. The most promising plants were identified by their persistence and brown patch resistance in the mowed clonal evaluation tests and intercrossed in 1992 to begin another cycle of selection. Additional selections from the varieties Austin, Avanti, Aztec, Bonsai, Eldorado, Hubbard 87, Shortstop, Trailblazer, Montauk and Phoenix were incorporated in to the Tomcat breeding program in 1992.

Following four cycles of phenotypic and genotypic selection plants from 21 maternal progenies produced the first Tomcat breeder seed in 1996. Breeder seed produced by Clemson University was sent to ~~Ceseco~~ International Seeds in 2000. A portion of this seed is maintained by ~~Ceseco~~ International Seeds and may be used to plant new foundation seed fields when necessary.

The variety Tomcat has appeared uniform and stable during multiplication from foundation to certified generation. Tomcat has a small percentage (<0.25%) of plants (*variants*) that are somewhat taller and coarser than the rest of the population. The percentage of these plants appears to be stable when seed is multiplied from breeder to foundation generation.

728
3/30/05

#200200229

Exhibit B**Statement of Distinctness**

Tomcat tall fescue (*Festuca arundinacea*) is a variety developed for use in turf.

Tomcat is most similar to Masterpiece. Differences between Tomcat and Masterpiece include, but are not necessarily limited to the following:

1. Tomcat has lighter green foliage when grown as turf (6.2 vs. 6.6 on 1-9; 9=dark green scale; LSD @ 0.05=0.1).
2. Tomcat has a longer flag leaf length (11.8 cm vs. 9.6 cm) *(Table 2, Exhibit D)*
(or: 3/26/2007)
3. Tomcat has semi-rough leaf margins while Masterpiece has smooth leaf margins.

EXHIBIT B

TABLE 4.
GENETIC COLOR RATINGS OF TALL FESCUE CULTIVARS 1/
1997-2000 DATA

NAME	GENETIC COLOR RATINGS 1-9; 9=DARK GREEN 2/																																
	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	ME1	M1	M01	M03	MS1	NE1	NJ1	NJ2	NY1	OH1	OK1	RI1	SC2	UT1	VA1	VA4	WA1	MEAN			
MB 213	7.6	7.2	7.7	4.7	7.9	6.8	5.9	7.9	7.1	8.5	8.4	7.0	7.8	7.1	6.3	7.5	6.9	7.5	7.2	7.1	6.6	8.2	8.1	7.7	7.0	6.0	6.7	6.9	6.3	8.0	7.2		
MB 26	6.9	7.2	7.3	5.2	7.8	6.6	6.0	7.3	6.8	8.4	7.4	8.0	7.0	6.3	7.9	7.2	7.7	7.4	7.2	6.6	7.3	8.2	7.7	7.0	6.7	6.3	6.7	6.3	8.0	7.1			
MB 29	7.3	7.3	7.2	5.5	7.5	7.0	5.6	6.7	7.1	8.2	8.7	7.0	7.5	7.0	6.0	8.1	6.8	7.9	7.3	7.2	6.6	8.3	8.4	7.8	6.3	6.2	6.1	6.1	6.0	6.2	8.0	7.1	
MB 214	7.8	7.4	7.7	5.3	7.6	7.1	5.8	6.9	6.9	8.1	8.3	7.1	7.5	7.0	6.2	7.6	6.8	7.7	7.1	6.9	6.7	8.5	8.3	7.5	7.0	6.0	6.6	6.4	6.2	8.0	7.1		
MB 216	7.3	7.3	7.7	4.8	7.8	7.4	6.0	7.1	6.9	8.2	8.7	7.4	7.5	6.5	6.0	8.1	6.3	7.3	6.8	6.9	6.4	6.8	8.2	7.5	7.3	5.8	6.9	7.3	6.3	8.1	7.1		
TRACER (BAR FA6 US1)	7.0	7.3	7.2	4.8	8.3	6.6	5.6	6.5	7.0	7.9	7.2	7.7	6.9	6.3	7.3	6.8	7.7	7.3	7.3	7.3	6.6	8.0	8.2	7.5	8.0	5.7	7.0	6.5	6.2	8.0	7.1		
ZANZIBAR (ZPS-5LZ)	6.3	7.5	7.4	4.7	8.1	6.8	5.7	6.3	6.3	8.3	8.3	8.3	7.2	7.0	6.7	6.1	7.8	6.9	7.5	7.1	6.9	7.8	8.0	7.6	8.0	5.8	7.2	6.8	6.1	7.7	7.0		
MB 215	7.0	7.2	7.4	5.3	7.6	6.9	6.0	7.8	6.8	8.0	8.1	7.1	7.7	6.8	6.0	7.6	6.9	7.5	7.4	6.8	6.2	7.3	7.6	6.3	6.0	5.8	6.0	5.9	8.0	7.0			
MB 28	7.8	7.3	7.3	4.6	7.9	6.9	6.1	7.2	6.9	7.9	8.3	7.2	7.2	7.1	6.1	7.3	6.8	7.4	6.8	6.8	6.1	7.7	8.2	7.6	6.3	7.1	6.7	6.3	7.6	7.0			
BARRERA (BAR FA6 US3)	7.0	7.3	7.4	4.8	8.3	6.7	5.8	7.2	6.7	7.5	8.0	7.0	7.7	6.9	6.2	7.1	6.4	7.7	7.2	6.4	6.2	8.2	8.1	7.6	6.7	6.0	6.2	8.0	7.3	6.9			
ARIZONA (PICK FA 6-91)	6.2	7.1	7.4	5.0	7.9	6.2	6.0	6.8	6.5	7.6	8.3	7.0	7.3	6.7	6.1	6.8	7.0	7.7	7.2	6.8	6.6	7.0	7.8	8.0	6.2	6.7	6.2	5.9	8.1	7.0			
BAR FA6 US2U	6.6	7.2	7.7	5.0	7.7	7.1	5.6	7.1	6.8	7.7	7.8	7.0	7.5	6.8	6.0	7.5	7.0	7.4	7.4	6.8	6.2	7.3	7.6	6.8	6.3	6.5	5.9	8.0	7.0				
ARABIA (J-5)	6.6	7.2	7.8	4.8	7.4	6.8	5.7	6.8	6.8	7.8	8.4	7.0	7.3	6.6	6.5	7.1	6.8	7.3	6.9	7.6	6.7	6.7	7.8	8.0	5.8	6.3	6.5	5.9	8.0	7.0			
PICK FA N-93	6.2	7.3	7.7	5.0	8.0	6.7	5.8	7.0	7.7	8.3	7.7	7.4	7.9	6.9	6.4	8.2	6.4	8.2	7.6	7.6	6.0	7.2	8.0	7.8	7.0	6.0	6.8	6.1	7.9	7.0			
REBEL 2000 (AA-989)	7.3	7.2	7.0	5.2	7.8	6.8	5.9	5.8	6.5	7.4	7.9	7.0	7.7	6.8	6.0	7.4	7.4	6.2	6.9	7.3	6.7	6.7	7.2	7.3	5.8	6.5	5.9	6.2	7.3	6.9			
BARRINGTON (BAR FA6D USA)	7.5	7.3	7.2	4.7	7.8	6.9	5.3	5.9	6.6	7.6	7.9	7.0	7.3	6.0	7.3	6.1	7.8	6.8	6.7	6.7	6.2	7.2	7.7	8.0	6.2	6.9	6.3	5.9	8.1	6.9			
SHENANDOAH II (WRS2)	7.4	7.3	7.2	5.3	7.4	6.8	6.8	5.9	6.2	6.9	7.7	8.0	6.9	7.8	6.9	7.3	6.4	7.8	7.0	6.2	7.8	8.1	7.5	7.7	6.0	6.4	6.0	8.0	6.9				
ARID 3 (J-98)	6.8	7.0	7.4	4.3	8.1	6.5	5.8	5.8	5.6	7.6	8.1	6.9	7.3	6.9	5.9	7.3	6.6	7.6	7.2	7.3	6.4	7.5	8.0	7.6	7.3	5.8	6.6	6.0	7.8	6.9			
PICK FA 20-92	6.8	7.3	7.2	4.6	7.6	7.1	5.7	6.7	6.3	7.7	8.1	7.0	8.0	6.8	5.9	7.3	6.6	7.3	7.3	7.2	6.4	7.2	8.1	7.4	7.0	5.8	6.3	6.1	7.3	6.9			
COYOTE	7.5	7.3	7.2	4.8	7.6	6.9	5.7	5.8	6.7	7.6	8.1	6.9	7.7	7.0	5.8	7.7	6.7	7.5	7.1	6.3	6.4	7.7	8.2	7.3	6.0	6.5	6.3	5.9	7.8	6.9			
EA 41	7.8	7.3	7.0	5.0	7.3	6.8	5.9	6.3	7.0	7.8	8.1	6.9	7.5	6.9	5.8	7.3	6.4	7.4	7.1	7.0	7.1	7.5	8.0	7.3	7.0	5.7	6.0	6.5	6.3	5.9	7.6		
DURANA (MB 211)	6.9	7.1	7.2	5.7	7.7	6.8	5.8	6.8	6.8	7.7	8.2	7.6	7.5	6.7	6.0	7.4	6.4	7.5	7.0	7.0	6.1	7.5	8.0	7.3	6.0	5.6	6.9	6.3	6.0	7.6	6.9		
FALCON III (MB 212)	7.8	7.3	7.0	4.8	7.4	7.3	5.9	6.7	6.9	7.6	8.0	7.6	7.5	6.7	6.0	7.4	6.4	7.5	7.0	7.4	6.4	5.8	7.7	7.9	6.3	6.2	6.9	6.3	5.9	7.4	6.9		
BARLEXAS II (BAR FA 6LV)	6.5	7.2	7.4	5.0	8.1	6.3	5.7	6.8	6.5	7.8	7.9	7.2	7.8	6.5	5.6	7.4	6.7	7.4	7.4	6.7	5.7	7.8	7.7	7.3	6.3	5.8	6.6	6.3	6.0	7.1	6.8		
PICK FA 15-92	5.9	7.2	7.2	4.3	7.9	7.1	5.8	6.5	6.3	7.3	7.9	7.6	7.7	6.7	6.0	7.5	7.0	5.8	7.7	7.1	6.3	5.9	7.5	7.8	7.1	6.0	6.8	6.4	6.1	7.8	6.8		
ARDI II (J-3)	6.0	7.2	7.4	5.5	7.5	7.3	5.7	5.9	6.5	7.5	7.7	8.0	7.1	7.0	6.6	6.0	7.6	6.3	7.3	6.8	7.1	6.7	7.2	7.5	7.0	6.2	6.3	6.5	6.3	7.6	6.8		
PLANTATION (PENNINGTON-1901)	7.8	7.5	7.0	4.7	8.2	6.7	5.9	5.9	6.5	7.9	7.9	6.7	7.3	7.0	5.8	7.7	7.0	6.4	7.2	6.4	6.7	7.7	7.9	7.3	6.2	6.4	6.3	6.8	6.0	7.8			
BRANDY (TM1-RBR)	6.9	7.0	7.0	4.7	8.1	6.4	5.6	5.6	6.8	7.1	7.9	7.6	7.8	7.0	5.9	7.0	6.4	7.7	7.4	7.1	6.9	7.1	7.3	7.3	6.0	6.5	6.1	7.7	6.8				
PICK FA UT-93	6.1	7.3	7.0	5.3	7.1	6.6	5.7	6.2	6.4	7.4	8.1	6.8	7.3	6.4	6.0	6.7	6.7	7.3	6.8	7.0	6.7	6.4	7.2	7.3	6.0	6.2	6.3	6.7	6.0	7.0			
CORONADO	6.8	7.3	7.2	4.8	7.4	6.8	5.9	5.7	6.7	7.5	8.0	6.6	7.3	6.9	5.6	7.1	6.4	6.9	7.3	7.2	6.8	6.0	7.2	8.1	7.7	6.0	7.1	6.7	5.9	7.4	6.7		
OFI-95-1	5.9	7.3	7.6	5.0	7.4	6.6	5.8	6.7	6.8	7.3	8.2	6.8	7.0	6.1	7.0	6.3	7.3	7.3	7.0	6.4	6.2	7.5	7.7	7.3	6.0	6.1	6.7	6.4	6.7	6.7			
VELOCITY (AA-983)	7.1	7.2	7.0	5.2	7.8	6.5	5.4	5.7	6.2	7.5	8.2	7.6	7.9	7.0	5.9	7.0	6.4	7.7	7.2	6.6	7.5	7.2	6.3	5.3	5.7	5.9	7.0	6.0	5.8	6.4	6.3	6.0	6.8
BRANDY (AA-A91)	5.9	7.5	7.0	5.2	8.2	6.8	5.5	5.4	6.3	7.7	8.0	6.6	7.5	6.6	5.2	7.5	6.7	6.4	6.9	7.4	6.7	6.3	5.9	7.3	6.3	6.0	6.5	5.9	7.6	6.7			
TWILIGHT II (TM1-TM1)	6.8	7.3	7.0	4.7	7.4	6.7	5.7	5.9	6.4	7.8	8.3	6.8	7.2	6.8	5.7	6.8	6.4	6.8	6.4	7.4	6.7	6.1	7.7	7.2	7.0	6.0	6.3	6.7	6.7	6.7			
TF 66 (BAR FA6 US6F)	6.2	7.2	6.9	4.7	7.4	6.8	5.8	5.3	6.3	7.2	7.8	7.0	7.0	6.7	5.8	6.8	6.7	6.7	6.7	6.7	6.1	7.7	7.7	7.3	6.7	5.8	6.0	6.1	7.6	6.7			
SCORPIO (ZPS-2PTF)	6.5	7.6	7.2	4.8	8.1	6.7	5.7	5.6	6.3	7.6	7.6	7.8	7.0	6.4	7.7	7.0	6.0	7.7	7.1	6.3	6.7	7.2	7.9	7.3	6.0	5.7	6.1	7.7	6.7	6.3	7.4		
PICK FA XK-95	6.8	7.3	7.1	5.0	6.9	6.9	6.0	6.7	7.0	7.4	7.7	7.0	7.5	6.6	6.2	6.5	6.5	6.2	7.3	7.1	6.0	5.3	7.2	7.9	7.3	6.0	5.7	6.1	7.3	6.7	6.7		
OFI-96-31	6.6	7.3	6.8	4.8	7.6	6.8	6.0	6.5	6.8	7.6	8.0	7.3	7.6	7.0	6.7	7.2	7.2	6.6	6.6	6.7	6.7	5.7	7.8	7.3	7.0	6.0	5.9	7.8	6.7	6.7			
REBRENDANT (LTP-4026 E+)	6.9	7.4	6.6	5.0	8.0	6.8	5.9	5.3	6.3	7.3	7.9	6.6	7.3	6.7	5.7	6.6	6.4	6.4	6.4	6.4	5.7	7.5	8.1	7.3	6.0	6.1	7.6	6.7	6.7				
SUNPRO	6.3	7.3	7.0	5.0	7.2	6.9	5.8	5.9	6.6	7.6	7.8	6.6	7.6	7.0	6.1	7.0	6.3	7.7	7.1	6.8	6.0	7.3	8.0	7.									

TABLE 2 (CONT'D)

GENETIC COLOR RATINGS OF TALL FESCUE CULTIVARS
1997-2000 DATA

NAME	GENETIC COLOR RATINGS 1-9; 9=DARK GREEN																			200200229												
	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	ME1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	NY1	OH1	OK1	RI1	SC2	UT1	VA1	VA4	WA1	MEAN	
BAR FA 6D	6.8	7.3	7.0	5.4	7.1	6.3	5.5	5.8	6.6	7.2	7.9	6.4	5.5	6.6	6.6	6.6	6.6	6.6	7.3	6.7	5.7	6.8	8.0	7.4	6.0	6.0	7.0	6.2	6.0	6.6		
MASTERPIECE (CLTP-SD-1F)	6.3	7.3	6.8	4.6	7.9	6.8	5.7	5.2	6.7	7.1	7.6	6.7	5.3	6.9	6.7	7.3	7.5	5.9	4.8	7.3	7.9	6.9	6.7	5.7	6.3	6.5	6.1	7.3	6.6			
SHORTSTOP II	5.8	7.3	6.3	5.2	7.1	6.3	5.6	5.7	6.2	7.2	7.8	7.1	6.8	6.7	6.7	6.4	7.3	6.8	6.7	8.2	7.8	7.2	6.3	6.0	6.0	5.8	6.1	7.6	6.6			
LION	6.1	7.4	7.4	5.3	7.0	5.9	5.1	6.7	6.7	7.9	6.9	6.7	6.4	6.7	6.9	6.2	6.2	6.8	5.9	4.6	7.2	8.0	7.1	6.3	5.7	6.1	6.9	6.1	7.7	6.6		
AIRLIE (MB 210)	7.3	7.3	7.0	4.5	7.3	7.0	5.6	5.8	6.3	7.1	7.8	6.7	5.7	7.7	6.4	5.7	6.9	6.6	7.1	7.7	7.9	7.1	5.0	6.0	6.8	6.4	5.8	7.8	6.6			
OLYMPIC GOLD (PST-5E5)	6.8	7.4	6.8	4.7	7.6	6.3	5.5	5.1	6.4	7.1	7.8	6.7	5.6	7.2	6.7	6.2	7.6	6.9	5.7	5.2	7.5	7.6	6.3	6.0	6.2	6.3	5.8	7.9	6.6			
CORONADO GOLD (PST-5R1)	6.4	7.3	7.0	4.7	8.1	6.5	5.5	6.1	6.4	7.2	7.4	6.6	5.5	6.8	6.6	6.7	6.7	6.0	5.0	7.5	7.8	6.9	5.7	6.6	6.3	6.3	5.9	7.6	6.6			
GENESIS	6.8	7.3	6.3	5.0	7.3	6.9	5.7	5.2	6.4	6.9	7.7	6.7	6.8	7.0	5.3	6.4	6.4	7.2	6.9	5.8	5.7	8.0	7.7	6.0	5.7	6.9	6.3	6.0	7.4	6.6		
CHAPEL HILL (TA-7)	6.9	7.2	6.6	4.7	7.4	6.8	5.5	4.8	6.4	7.3	7.8	6.6	7.0	7.0	5.4	6.3	6.1	7.3	7.0	5.6	6.0	7.2	7.8	7.3	7.0	5.5	5.5	5.9	7.3	6.6		
ISI-TF10	5.9	7.3	6.4	4.5	7.1	6.8	5.8	5.8	6.4	6.9	8.0	6.8	5.5	6.8	6.4	6.3	6.4	7.1	6.3	5.7	7.5	7.8	7.2	6.0	5.5	6.3	6.4	6.2	7.4	6.6		
CU95011	6.6	7.3	7.0	4.8	7.2	6.6	5.6	5.2	6.3	7.0	8.0	6.4	7.0	6.6	5.4	6.7	6.4	7.4	6.9	5.4	5.8	7.7	8.0	7.0	6.0	6.6	6.3	5.8	7.4	6.5		
CROSSFIRE II	6.6	7.4	6.9	4.7	7.6	6.8	5.7	5.2	6.4	6.9	7.6	6.8	7.0	6.8	6.6	6.3	7.2	6.7	6.2	5.4	8.2	7.6	7.3	5.0	5.7	6.2	6.0	5.7	5.9	7.1		
WATCHDOG (PICK FA-B-93)	6.8	7.3	6.9	5.2	7.9	6.6	5.8	5.0	6.7	7.3	7.9	6.6	7.7	6.4	5.3	6.3	7.2	6.5	6.0	5.4	7.8	7.8	7.2	6.3	5.7	5.8	5.4	6.1	7.1	6.5		
BULLDOG (PICK GA-96)	6.1	7.2	6.8	5.3	7.6	6.8	5.7	5.6	6.5	7.0	7.8	6.8	7.2	6.9	5.6	6.3	6.1	7.1	6.0	5.6	7.7	8.0	7.3	6.0	5.8	6.4	6.2	6.0	7.6	6.5		
PST-5TO	6.5	7.3	7.2	4.7	7.9	6.4	5.6	5.2	6.6	6.9	7.8	6.7	5.7	6.4	5.7	6.9	6.0	7.1	6.7	5.6	4.8	6.5	7.7	6.0	5.8	6.2	6.4	6.0	7.0	6.6		
DOMINION (PST-5M5)	6.9	7.3	6.6	4.7	7.6	6.8	5.6	5.0	6.7	6.8	7.7	6.3	7.5	6.8	5.7	7.0	6.1	6.9	7.3	5.1	5.0	7.0	7.9	6.0	5.5	6.4	5.9	6.1	7.1	6.5		
SR 8500 (SRX 8500)	5.7	7.4	7.1	4.8	7.5	6.8	5.2	5.6	6.3	6.9	7.8	6.4	7.0	6.2	5.8	6.6	7.3	6.8	6.2	5.9	7.0	7.8	7.0	5.7	6.0	5.7	6.0	7.0	7.4	6.5		
ALAMO E	5.6	7.3	7.0	4.5	7.4	6.2	5.7	5.5	6.4	6.7	7.7	6.4	6.0	6.7	6.3	6.4	6.3	7.2	6.7	6.3	4.9	7.0	8.0	7.0	6.0	6.2	5.8	5.8	6.0	7.6	6.5	
OFI-FWY	5.5	7.3	6.7	4.7	7.1	6.8	5.4	5.5	6.4	6.8	7.8	6.2	7.0	6.6	5.5	6.3	6.7	7.4	6.0	5.3	7.0	7.7	5.3	6.0	7.1	6.2	5.9	7.2	6.4			
BRAVO (RG-93)	6.3	7.3	6.6	4.7	7.4	6.7	5.8	5.1	6.5	6.9	8.1	6.4	6.7	6.8	5.3	6.9	6.0	7.3	6.8	5.8	7.0	7.7	6.5	5.0	5.8	6.4	6.0	6.3	7.7	6.4		
SOUTHERN CHOICE	6.5	7.3	6.8	4.7	7.6	6.8	5.5	5.8	6.3	7.3	7.6	6.7	6.8	6.6	5.3	6.7	6.3	7.0	6.7	5.6	4.9	7.0	7.7	6.5	5.0	5.8	6.0	5.9	7.4	6.4		
FINELEAF PETITE	6.3	7.0	6.9	4.7	7.2	6.4	6.1	5.3	6.5	6.8	7.6	6.3	7.7	6.8	5.4	6.6	6.1	7.1	6.7	5.3	4.7	7.0	7.6	7.3	6.0	5.7	6.6	5.8	5.9	7.3	6.4	
WILDFIRE (ATF-196)	5.4	7.3	7.0	5.2	7.6	6.5	5.6	4.3	6.1	6.9	7.8	6.2	7.0	6.7	5.6	6.5	6.1	7.4	6.9	5.3	3.7	7.2	7.5	6.7	6.0	6.3	6.3	6.1	7.6	6.4		
TAR HEEL	6.4	7.2	7.1	5.2	7.3	6.7	5.5	4.9	6.3	6.7	7.3	6.3	7.0	6.7	5.5	6.5	6.0	7.2	6.3	5.4	5.0	6.8	7.6	7.0	5.8	6.5	5.8	5.7	7.4	6.4		
DUSTER	5.7	7.2	6.8	4.5	6.9	7.0	5.9	5.3	6.3	7.3	7.4	6.4	7.2	6.2	5.1	6.0	6.2	7.2	7.0	5.3	5.1	7.3	7.7	7.2	6.3	5.7	6.3	6.1	5.9	7.2	6.4	
WX3-275	5.7	7.1	7.0	5.3	7.5	6.3	5.3	5.5	6.3	6.9	7.5	6.2	7.0	6.4	5.4	6.7	6.5	7.0	7.0	5.8	4.6	8.0	7.7	7.2	6.3	5.7	5.8	6.0	6.6	7.4	6.4	
ANTHEM II (TM1-FNN)	6.2	7.0	6.3	4.3	7.1	6.3	5.4	5.4	6.6	6.9	7.7	6.8	5.3	6.5	6.3	6.0	7.2	6.0	6.0	6.3	7.5	6.5	5.3	6.0	6.9	6.0	6.1	7.1	6.4	6.4	7.6	6.4
APACHE II	5.9	7.3	6.8	5.0	7.5	6.8	5.7	4.8	6.3	6.8	7.7	6.3	7.2	6.7	4.9	6.3	6.4	6.9	7.2	5.4	5.1	7.5	7.9	6.8	5.0	5.8	5.8	6.0	7.1	6.4		
RED COAT (ATF-038)	6.0	7.3	6.4	4.3	6.9	6.4	5.8	4.8	6.5	6.7	7.6	6.4	5.3	6.0	6.7	7.4	7.1	5.3	4.9	7.0	7.8	6.7	5.7	6.2	6.5	6.2	5.8	7.1	6.3			
EMPEROR	6.2	7.3	6.7	4.2	7.3	6.8	5.6	4.8	6.3	6.8	7.3	6.3	6.8	6.3	5.3	6.6	6.3	6.8	6.8	5.3	4.9	7.2	7.5	7.0	6.0	5.7	6.3	6.0	6.0	7.3	6.3	
OFI-96-32	5.9	7.3	6.9	4.3	7.4	6.3	5.5	4.3	6.3	6.7	7.5	6.8	7.0	6.7	5.5	6.4	6.0	6.8	6.6	5.7	4.9	7.2	7.6	6.8	5.7	6.0	5.8	5.8	6.9	6.3		
PIXIE E+	6.0	7.2	6.4	4.3	7.3	6.9	5.5	5.1	6.4	6.8	7.8	6.4	6.5	6.6	6.1	6.6	6.2	6.9	6.2	5.0	4.8	6.7	7.8	6.8	6.0	5.8	5.8	6.0	7.3	6.3		
RSAU	6.3	7.3	6.9	4.5	7.3	6.7	5.7	4.8	6.4	7.1	7.6	6.3	7.0	6.4	5.1	6.5	6.2	6.8	6.8	4.9	5.0	7.0	7.5	6.7	6.3	5.7	5.7	6.2	6.1	7.0	6.3	
JAGUAR 3	6.6	7.3	6.3	4.7	7.7	6.5	5.7	4.5	6.4	6.9	7.4	6.3	7.3	6.4	5.3	6.0	6.3	6.0	6.6	5.0	5.7	7.7	7.4	6.9	5.7	5.9	6.0	6.0	7.2	6.2		
COCHISE II	6.1	7.2	6.4	4.8	7.6	6.3	5.7	4.8	6.2	6.8	7.5	6.3	6.8	6.3	5.4	6.2	6.3	6.8	6.8	5.3	5.0	8.0	7.5	6.9	5.7	5.6	6.0	5.8	7.1	6.3		
TOMAHAWK-E	5.6	7.2	6.9	5.0	6.9	6.3	5.5	4.3	6.3	6.7	7.5	6.8	7.0	6.7	5.5	6.4	6.0	6.8	6.6	5.7	4.9	7.2	7.8	6.4	5.7	5.9	6.0	5.9	7.3	6.2		
AZTEC II (TM1-A2)	5.4	7.5	6.8	5.0	6.7	6.3	5.8	4.1	6.4	6.7	7.6	6.3	6.7	7.0	5.3	6.6	6.1	6.9	6.4	6.2	4.9	6.5	7.7	6.8	4.7	6.3	5.7	5.7	6.2	6.1	7.0	6.3
TULSA	5.9	7.4	6.3	4.8	6.9	6.3	5.8	4.3	6.5	6.3	7.8	6.3	6.5	6.7	5.1	6.3	6.0	6.6	6.0	5.2	7.7	7.4	6.9	5.7	5.9	6.0	6.0	7.2	6.2	6.2		
WOLFPACK (PST-R5TK)	6.6	7.3	7.0	5.0	7.0	6.8	5.4	4.0	6.6	6.6	7.3	6.4	6.8	6.2	5.3	6.1	6.2	7.0	6.8	4.7	4.0	7.2	7.8	6.4	5.3	5.7	5.9	6.0	7.3	6.2		
BANDANA (PST-R5AE)	5.8	7.3	7.0	5.5	7.4	6.8	5.7	4.6	6.3	7.3	7.6	6.2	7.2	6.1	5.3	6.1	6.2	7.0	6.8	4.9	3.9	7.2	7.8	6.4	5.7	5.9	6.0	5.9	7.3	6.2		
BONSAI 2000 (BULLET)	5.7	7.3	6.7	4.8</																												

EXHIBIT B

TABLE 2. (CONT'D)

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN
1997-2000 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN

NAME	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	ME1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	NY1	OH1	OK1	RI1	SC2	UT1	VA1	WA1	MEAN
CU9502T	5.8	7.3	6.3	4.8	7.1	5.9	5.7	4.9	6.3	6.1	7.9	6.3	7.0	6.2	4.9	6.2	5.7	7.0	6.5	5.4	4.1	7.0	7.6	6.3	7.0	5.7	6.3	5.8	6.9	6.2
TSI-T19	5.5	7.2	6.6	4.5	7.4	6.5	5.4	4.7	6.3	6.5	7.9	6.4	6.5	6.6	4.8	6.1	6.6	6.8	6.9	5.1	4.2	7.0	7.6	6.5	5.0	5.7	6.1	5.9	6.8	6.2
SR 8210	5.6	7.3	6.6	4.7	7.0	6.2	5.4	4.5	6.6	6.4	7.6	6.4	6.8	6.2	4.8	6.0	6.8	7.1	5.1	4.3	7.3	7.8	6.5	5.0	5.5	5.9	5.8	6.8	6.2	
WYATT (ATF-188)	5.3	7.3	6.3	4.3	7.4	6.3	5.8	4.3	6.3	6.6	7.2	6.3	7.0	6.8	4.9	6.3	6.8	6.8	4.0	4.3	7.5	7.7	6.5	6.0	5.5	5.8	5.8	6.8	6.2	
GLEN EAGLE (EC-101)	6.0	7.2	5.6	4.5	6.8	6.0	5.6	4.8	6.4	6.5	7.7	6.4	7.5	6.6	4.8	5.8	5.8	6.6	4.7	4.4	7.2	7.8	6.6	6.3	6.0	5.8	5.8	6.8	6.2	
WVPB-1B	6.2	7.2	6.3	4.8	7.1	6.2	5.4	4.1	6.4	6.4	7.5	6.3	6.7	6.5	5.0	6.3	6.0	7.4	6.7	4.4	7.5	7.3	6.5	4.7	5.3	5.9	5.8	6.9	6.1	
EQUINOX (TM1-N91)	5.7	7.2	6.7	4.3	6.6	5.9	5.4	4.3	6.3	6.5	7.3	6.6	7.0	6.7	5.1	6.2	6.0	6.7	5.6	4.4	7.5	7.3	6.5	4.7	5.3	5.9	5.8	6.7	6.1	
FEDESTAL (PC-AO)	5.2	7.0	6.6	4.5	7.0	6.6	5.7	4.0	6.2	6.7	7.8	6.4	7.2	6.6	4.8	5.8	5.8	6.0	7.1	6.8	4.3	7.9	7.2	6.8	5.0	6.2	6.0	5.9	6.9	6.1
ISI-IF11	5.7	7.2	6.3	4.5	7.2	6.6	5.7	4.4	6.0	6.5	7.7	6.3	7.2	6.7	5.0	6.3	5.7	6.3	5.1	4.0	6.8	7.5	6.5	5.0	5.7	5.4	5.8	6.0	6.1	
DP 50-9011	6.4	7.3	6.7	5.5	6.4	6.2	5.5	4.8	6.4	6.5	7.6	6.6	7.0	6.3	5.0	6.2	5.6	6.7	6.0	4.9	6.2	7.9	6.3	5.0	5.8	5.7	6.0	6.6	6.1	
WPEZE (WVPB-1C)	6.3	7.1	5.8	4.3	6.8	6.7	5.6	4.5	6.3	6.7	7.5	6.2	7.5	6.7	4.9	5.8	6.1	6.6	7.1	5.0	4.1	6.5	7.5	6.5	5.0	5.7	5.8	5.9	6.4	6.1
RENEGADE	5.6	7.0	6.8	4.2	7.1	6.7	5.5	4.4	6.3	6.2	7.5	6.3	7.2	6.8	5.0	6.2	6.0	6.7	5.6	4.3	3.8	6.7	7.3	6.4	5.3	5.5	5.9	6.0	6.0	
CUMSTOCK (SSDE31)	5.3	7.0	6.3	4.0	6.4	6.4	5.7	4.2	6.3	6.8	7.3	6.3	6.8	6.3	5.0	6.2	5.9	6.6	4.6	4.3	3.9	7.5	7.7	6.8	5.3	5.8	5.7	5.9	6.8	6.1
ATF-020	5.7	7.2	6.9	4.3	6.7	5.7	5.3	4.0	5.9	6.8	7.6	6.1	7.2	6.2	5.0	6.3	6.0	5.9	6.3	4.6	5.2	7.0	7.4	6.3	5.7	5.8	6.1	5.9	6.9	6.1
ONCUE (PST-523)	6.0	7.3	6.8	4.2	7.3	5.9	5.3	3.8	6.3	6.6	7.1	6.2	6.5	6.3	5.0	6.3	6.0	6.9	6.2	4.8	4.6	7.3	7.4	6.6	5.3	5.7	6.1	5.8	6.8	6.1
ATF-022	5.9	7.3	6.8	5.3	7.0	6.3	5.0	4.6	6.1	6.4	7.2	6.3	6.8	6.6	4.8	6.0	6.2	6.4	5.3	4.1	4.1	7.7	7.6	6.4	5.5	5.9	5.7	6.0	7.0	6.0
MUSTANG 11	6.3	7.3	6.0	4.3	7.6	6.0	5.7	4.3	6.3	6.6	7.2	6.3	6.5	6.7	4.8	5.9	5.7	6.9	6.7	4.9	3.8	6.7	7.3	6.4	5.2	5.4	6.0	5.8	6.6	6.0
PSII-TF-9	5.6	7.1	6.2	4.3	7.3	6.2	5.6	4.1	6.1	6.7	7.4	6.2	6.2	6.3	4.9	5.5	6.1	6.2	6.9	4.6	3.9	7.7	7.2	6.4	5.3	5.5	5.3	5.8	6.7	6.0
LEPRECHAUN	6.0	7.1	6.2	4.5	7.2	6.5	5.5	4.6	6.4	6.5	6.9	6.2	6.7	6.3	5.0	6.1	6.1	5.7	6.3	5.0	5.7	5.9	6.7	6.0	5.5	5.7	5.8	6.7	6.0	
KITTY HAWK S.S.T. (SS45DH)	5.3	7.3	5.9	4.3	6.8	6.1	5.6	3.9	6.2	6.7	7.3	6.2	6.8	6.4	4.8	6.5	5.7	6.8	7.0	4.7	4.1	6.7	6.5	5.7	5.5	5.6	6.1	5.8	6.7	6.0
RESERVE (ATF-182)	5.9	7.3	6.2	4.7	7.3	6.3	5.7	4.3	5.9	6.5	7.0	6.2	6.3	6.7	5.0	5.8	5.4	6.5	6.1	4.1	3.7	7.7	7.6	6.3	5.0	5.5	6.1	5.8	6.7	6.0
HELIX (WVPB-1D)	5.7	7.1	6.2	4.8	6.6	6.6	5.3	4.3	6.1	6.4	7.5	6.2	6.3	6.7	5.0	5.8	5.4	6.5	6.1	4.1	3.8	7.2	7.4	6.3	5.7	5.8	6.1	6.1	6.8	6.0
ATF-253	5.8	7.1	6.0	4.3	6.8	6.2	5.6	4.2	6.1	6.7	7.4	6.2	6.2	6.3	4.9	5.5	6.1	6.2	6.9	4.2	4.6	5.7	6.5	6.3	6.0	5.7	5.3	5.8	5.9	6.0
REGIMENT	6.0	7.3	5.6	4.2	6.3	6.6	5.6	4.3	6.3	6.5	7.7	6.3	6.5	6.0	5.1	6.1	5.7	6.3	5.0	4.4	7.2	7.6	6.7	5.0	5.5	6.0	5.9	6.4	6.0	
PRO 8430	5.7	7.2	6.6	4.2	7.3	6.8	5.5	4.2	6.3	6.3	7.3	6.2	6.8	6.4	4.8	6.3	5.2	6.3	6.8	4.6	4.4	7.2	7.6	6.3	5.0	5.8	5.8	5.9	6.7	6.0
AXION (ATF-192)	5.0	7.2	6.8	4.8	6.4	5.9	5.6	4.3	5.5	6.2	7.0	5.9	6.5	6.1	4.8	5.8	5.3	6.6	6.9	4.1	3.7	6.7	7.6	6.3	5.0	5.5	6.2	6.0	6.0	
JSC-1	5.1	7.2	5.9	4.5	6.2	6.3	5.5	4.1	6.3	6.1	7.5	6.2	6.3	6.3	4.7	5.2	5.6	6.3	5.1	4.7	3.7	7.7	7.8	6.4	5.0	5.5	6.1	5.9	6.6	
SRX 8084	5.3	7.4	6.4	4.3	6.8	6.0	5.6	4.4	6.2	6.8	7.3	6.1	6.8	6.8	4.9	5.8	6.1	6.3	6.4	4.6	4.0	7.7	7.6	6.3	5.7	5.7	5.3	5.8	5.9	6.5
BONSAI	5.5	7.2	7.0	4.7	5.8	5.9	5.4	3.5	6.2	6.6	6.0	6.4	6.4	4.8	5.8	5.8	6.8	6.4	5.0	3.8	6.7	7.4	6.4	5.7	5.5	5.5	5.7	5.8	6.0	
SAFARI	5.8	7.2	5.6	4.5	6.9	6.3	6.0	2.8	6.3	6.1	7.0	6.1	7.2	6.7	4.5	5.9	5.9	6.1	6.8	4.1	4.3	6.5	7.1	6.2	5.7	5.5	5.0	5.8	5.9	
ATF-257	6.0	7.2	5.8	4.3	6.1	5.3	3.5	5.5	6.4	7.3	6.0	6.2	6.1	4.6	5.5	5.6	6.6	6.2	3.8	3.4	7.2	7.5	6.2	4.3	5.3	5.5	5.6	5.9	5.8	
SHEMANDRAH	6.3	6.9	5.4	4.3	6.4	6.1	5.5	3.8	6.7	6.1	6.8	6.0	6.2	6.1	4.3	5.8	5.8	6.3	6.9	3.6	2.8	6.7	6.9	6.3	5.0	5.5	5.5	5.7	6.0	
DLF-1	5.6	6.9	4.8	4.5	6.2	5.8	5.5	3.3	6.0	6.1	6.8	6.5	5.8	6.0	4.3	5.5	5.5	6.1	6.0	3.9	2.8	6.7	7.2	5.6	5.0	5.3	5.4	5.9	6.5	
JTF-FC-96	5.6	7.1	5.0	4.3	6.0	6.3	5.3	2.8	5.5	5.5	6.6	5.9	6.0	6.6	4.5	5.4	5.4	5.6	4.7	3.5	3.1	6.2	7.3	5.6	4.7	5.5	5.4	5.5	5.9	
TITAN 2	5.5	6.8	6.1	4.0	6.9	6.1	5.2	2.8	5.8	6.4	6.3	5.9	5.7	5.9	4.3	5.1	5.4	5.6	4.7	3.0	3.4	6.8	5.8	3.7	5.5	5.8	5.3	5.9	5.8	
AV-1	4.3	7.2	4.6	4.8	5.7	6.3	5.6	3.3	5.7	5.5	6.7	5.7	5.6	6.2	4.1	4.3	5.2	5.5	4.7	3.0	2.9	6.0	7.1	5.9	3.7	4.2	5.3	5.8	5.7	
JTF-FA-96	4.5	7.0	4.6	4.7	5.6	5.8	4.7	2.4	5.4	5.1	5.8	5.3	5.2	5.4	3.5	4.6	4.7	5.6	4.7	3.0	2.9	6.2	7.2	5.6	5.0	4.8	5.8	5.9	5.4	
DP 7952	5.1	6.8	4.6	4.3	5.4	5.6	5.0	3.0	5.6	5.5	6.2	5.6	4.3	5.8	4.0	4.7	5.6	5.8	4.7	3.2	2.8	6.7	6.8	5.5	4.0	5.3	5.2	5.0	5.0	
ARID	5.3	6.8	4.6	3.8	5.7	5.6	4.8	1.8	5.4	4.7	5.8	5.2	5.3	3.6	4.1	4.8	5.2	6.3	2.7	2.1	5.3	6.8	5.4	2.0	5.5	5.1	5.3	5.6	4.9	
KENTUCKY-31 WENDO.	5.2	7.1	4.3	3.7	4.9	5.1	4.2	1.3	3.4	3.8	4.3	4.7	3.2	5.0	3.2	2.8	3.6	4.2	5.7	2.2	1.0	5.2	5.5	5.1	2.7	5.0	4.0	4.8	4.2	4.0
LSD VALUE	0.7	0.5	0.9	0.7	0.6	1.0	0.5	0.4	0.6	0.6	0.9	0.6	0.5	0.8	0.8	0.6	1.0	0.8	0.5	0.4	0.9	0.7	0.4	0.7	0.1	0.7	0.4	0.7	0.1	
C.V. (%)	13.6	8.0	7.7	15.5	10.5	11.7	12.7	25.1	9.6	8.6	10.6	9.5	11.2	9.7	12.3	15.6	14.4	10.5	18.1	15.4	24.5	9.6	8.4	8.1	9.1	13.6	14.7	15.1	8.5	9.8

EXHIBIT B

TABLE 2.

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS 1/
1997-2000 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 2/

NAME	AR1	CA1	CA3	DE1	GA1	IL1	IL2	IN1	KS2	KY1	MD1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	OH1	OK1	SC2	VA1	VA4	WA1	MEAN		
GAZELLE	7.5	7.5	6.3	5.5	7.6	7.2	6.2	8.2	6.3	7.0	8.7	6.8	6.3	5.8	6.7	5.9	7.5	6.5	7.0	6.7	4.3	7.3	5.7	7.3	7.0	2.8	6.6	
DYNASTY (PICK RT-95)	7.9	7.0	6.0	5.5	7.3	6.9	6.1	8.2	5.8	7.1	8.0	6.8	6.4	5.8	6.7	5.8	7.7	6.7	6.3	6.8	4.5	7.5	5.5	7.1	6.7	2.9	6.5	
MASTERPIECE (LTP-SD-1F)	6.9	7.3	5.7	5.6	7.4	7.3	6.2	7.3	6.3	6.5	8.0	7.2	6.3	5.3	6.1	5.4	7.7	6.7	7.3	6.1	4.4	7.3	6.0	6.7	7.0	2.9	6.4	
SCORPIO (ZPS-2P(F))	7.4	7.3	6.0	5.0	7.2	6.4	5.8	7.8	6.1	6.7	8.1	7.2	6.3	6.0	5.4	5.3	7.4	6.6	7.3	6.4	4.3	7.3	5.5	7.1	7.0	2.8	6.4	
REMBRANDT (LTP-4026 E+)	8.0	7.3	5.7	5.0	7.2	6.3	5.2	7.2	6.3	7.1	8.0	6.8	6.2	5.5	5.6	6.1	7.6	6.6	6.0	6.3	4.5	7.4	5.7	7.1	7.0	2.8	6.4	
BARLEXAS II (BAR FA 6LV)	7.6	7.2	6.0	4.5	7.4	7.4	6.7	6.0	7.0	7.2	8.4	6.3	6.2	5.7	5.6	7.3	6.8	7.7	5.5	4.8	7.4	5.7	7.0	6.0	3.0	6.4		
BARRINGTON (BAR FA6D USA)	7.2	6.8	6.0	5.0	7.0	6.8	6.3	6.6	6.7	6.0	7.2	6.5	6.6	5.8	6.6	5.8	7.4	6.6	5.7	5.7	4.8	7.4	5.7	6.8	7.7	2.8	6.4	
TRACER (BAR FA6 US1)	7.3	7.0	6.0	5.2	7.1	6.8	5.7	6.5	7.0	7.2	8.4	6.5	6.6	5.8	6.2	5.8	7.4	6.8	7.0	6.1	3.9	7.3	5.7	6.9	6.7	2.8	6.3	
WILDFIRE (ATF-196)	7.4	7.0	6.3	5.2	7.4	7.0	5.6	7.0	5.5	6.4	6.7	6.5	6.3	5.7	5.8	7.1	6.8	7.3	6.5	4.3	7.2	5.5	6.3	7.0	2.9	6.3		
BAR FA 6D	7.2	6.5	6.0	5.0	6.7	6.5	5.6	6.8	6.3	7.2	8.1	6.3	6.1	6.0	6.2	5.7	7.1	6.7	6.3	6.7	5.7	4.8	7.4	5.5	6.3	7.0	2.9	6.3
MB 26	7.8	6.8	6.0	5.2	6.7	6.3	5.5	7.6	5.8	6.8	8.1	6.5	6.6	5.7	5.3	5.7	7.7	6.7	6.3	6.7	5.7	4.8	7.4	5.5	7.3	7.3	3.1	6.3
MILLENNIUM (TM1-RBR)	7.4	6.8	6.0	5.0	6.3	6.0	7.1	6.1	6.9	8.4	6.5	6.3	5.5	5.7	5.6	7.5	6.4	6.4	5.3	5.8	4.6	7.3	6.5	7.1	7.3	3.0	6.3	
CUP2021	6.3	7.2	6.3	5.3	7.1	6.8	5.7	6.1	6.2	6.7	8.1	6.7	6.2	5.8	5.8	5.8	7.5	6.4	6.7	6.2	4.2	7.2	5.5	6.8	6.7	2.4	6.2	
BONSAI 2000 (BULLET)	6.0	7.3	6.3	5.2	6.3	5.0	5.8	6.7	6.2	6.7	8.1	6.7	6.0	6.0	5.8	5.4	7.5	6.4	7.0	5.8	4.2	7.2	5.5	7.3	6.7	3.0	6.2	
COYOTE	7.7	6.8	6.0	5.8	6.6	5.7	7.2	6.2	7.3	5.8	6.8	7.9	6.3	6.1	6.1	5.8	7.3	6.9	6.3	6.5	4.0	7.4	5.5	6.8	7.0	2.7	6.2	
PLANTATION (PENNINGTON-1901)	7.6	6.9	6.0	5.8	7.3	5.8	5.7	6.8	5.8	6.8	7.6	6.7	6.0	5.3	6.1	5.8	7.3	6.7	6.0	5.8	4.4	7.3	5.5	6.9	6.3	2.7	6.2	
BULLDAWG (PICK GA-96)	7.6	6.9	6.0	4.7	7.2	6.5	5.7	6.6	6.1	6.5	8.1	6.5	6.5	5.5	6.1	5.4	7.5	6.7	6.6	6.7	6.1	4.0	7.4	5.5	6.8	6.7	2.7	6.2
JAGUAR 3	6.4	7.1	6.0	6.2	7.1	6.3	5.4	7.6	6.0	6.3	8.3	6.8	6.4	5.3	5.8	5.8	7.3	6.4	6.3	5.8	3.9	7.4	5.5	6.8	7.3	2.8	6.2	
PICK FA XK-95	7.5	7.0	7.0	6.0	5.5	6.2	6.4	5.6	5.8	5.9	6.4	7.9	6.3	6.2	5.5	6.7	7.3	6.7	6.3	6.2	4.1	7.2	5.5	7.3	6.3	2.6	6.2	
BARRERA (BAR FA6 US3)	7.4	7.0	6.0	4.8	6.6	6.3	5.8	6.0	6.7	8.6	6.7	6.2	6.0	5.8	5.4	7.6	7.1	6.7	6.3	6.6	4.0	7.4	6.0	6.9	7.0	2.8	6.1	
ZAMZIBAR (ZPS-5L2)	7.5	6.7	6.0	5.0	7.1	6.3	5.8	6.3	6.0	6.7	8.6	6.7	6.2	6.0	5.8	5.4	7.6	6.2	6.3	5.8	4.2	7.4	5.8	6.7	6.3	3.1	6.2	
SR 8500 (SRX 8500)	7.1	6.8	6.0	5.2	6.7	6.4	5.7	6.9	6.2	6.8	8.1	6.5	6.6	5.7	6.2	5.8	7.2	6.3	5.3	5.3	4.5	7.2	5.8	6.6	7.0	2.6	6.2	
SUENANDOAH II (WRS2)	6.2	6.8	6.0	5.5	7.2	6.3	5.9	7.5	5.8	6.5	7.7	6.5	6.4	5.2	6.3	5.7	7.3	7.1	5.3	5.8	3.7	7.4	5.7	6.8	6.7	2.6	6.2	
WATCHDOG (PICK FA-B-93)	6.8	6.8	6.0	5.2	6.8	6.0	5.6	6.7	6.3	6.7	7.6	6.5	6.0	5.3	6.1	5.9	7.3	6.5	7.3	5.8	3.9	7.3	5.5	6.3	7.0	2.7	6.1	
WYATT (ATF-188)	5.8	6.8	5.7	5.5	7.1	6.3	5.8	6.2	6.3	6.2	7.8	6.3	6.2	5.5	5.5	5.5	7.7	6.7	6.5	4.3	7.3	5.5	6.4	6.0	2.7	6.1		
EMPEROR	6.8	6.8	5.3	5.8	7.5	6.2	5.9	6.4	5.7	6.8	8.1	6.5	6.6	5.7	6.2	5.7	7.5	6.3	6.3	5.7	4.6	7.4	5.5	6.6	6.7	3.0	6.1	
SUNPRO	8.0	6.7	6.0	5.2	6.4	6.6	5.6	6.4	5.7	6.3	8.0	6.5	6.2	5.5	5.6	5.6	7.1	6.5	6.3	5.7	4.3	7.3	6.0	6.6	6.0	2.6	6.1	
PICK FA 15-92	7.0	6.6	6.0	5.0	7.4	6.6	5.7	6.5	5.7	6.8	7.5	7.4	6.0	6.1	5.7	6.2	5.7	7.1	6.5	6.3	4.2	7.6	5.5	6.8	6.7	2.7	6.1	
SHORTSTOP II	6.8	6.9	6.0	5.0	6.6	6.7	5.8	6.8	5.5	6.8	7.5	7.4	6.0	6.1	5.7	6.2	5.7	7.3	6.4	6.7	5.4	4.0	7.2	5.7	6.9	7.0	2.3	6.1
FALCON III (MB 212)	6.5	7.1	5.7	5.2	7.0	6.6	5.6	6.8	5.8	6.9	7.9	6.2	6.1	5.7	6.3	5.8	7.2	6.8	5.7	5.6	4.2	7.3	5.7	5.9	7.3	2.8	6.1	
AZTEC II (TM1-AZ)	6.9	7.4	6.0	5.7	6.2	6.3	5.8	6.7	5.9	6.8	7.7	6.7	6.1	5.7	6.0	5.7	7.3	6.4	5.7	5.3	3.9	7.3	5.7	7.3	6.7	2.8	6.1	
OFL-951	7.0	6.8	6.0	5.2	6.4	6.7	5.9	6.7	5.8	6.8	7.1	6.3	6.1	5.5	5.8	5.8	7.5	7.0	5.3	4.1	7.1	5.7	6.8	7.3	5.5	6.7	3.0	6.1
CROSSFIRE II	6.6	7.0	6.3	5.8	7.7	6.2	5.8	6.9	5.8	6.2	7.6	6.8	6.2	5.5	5.8	5.2	7.5	6.6	5.7	5.7	5.0	4.3	7.1	5.5	6.5	7.0	2.8	6.1
TULSA	6.4	6.8	6.3	4.8	6.5	6.5	5.6	6.9	5.8	6.7	7.1	6.3	6.3	5.3	6.4	5.4	7.5	6.4	6.7	5.6	7.1	6.8	5.3	5.6	7.2	5.7	6.1	
ANTHEM II (TM1-FMN)	6.8	7.3	6.3	5.7	6.3	6.3	5.8	7.4	5.3	6.7	7.0	6.3	6.1	5.5	5.5	5.8	7.1	6.4	4.7	6.1	4.3	7.3	5.5	6.2	7.0	2.6	6.1	
PICK FA 20-92	6.2	6.3	6.0	5.4	6.3	6.3	5.2	6.2	6.3	6.8	7.3	6.2	6.6	5.7	5.6	5.8	7.6	6.3	6.7	6.2	3.8	7.3	6.2	5.5	7.0	3.0	6.1	
SR 8210	6.2	6.5	6.0	5.8	6.4	5.9	5.6	6.2	6.0	6.5	7.7	6.7	6.3	5.5	5.7	6.4	7.0	6.5	6.2	6.2	4.3	7.1	5.5	6.3	7.0	2.9	6.1	
ARID 3 (J-98)	7.3	6.6	5.7	5.3	6.8	6.5	5.6	6.5	5.8	6.8	7.4	6.7	6.1	5.0	5.7	5.7	7.4	6.5	6.3	5.4	4.3	7.1	5.5	6.3	6.7	2.4	6.1	
BRANDY (J-101)	7.0	6.8	6.0	5.3	6.8	6.5	5.3	6.5	6.5	6.8	7.2	6.5	6.4	5.5	5.6	5.0	6.0	7.1	6.8	5.3	4.3	7.5	5.7	6.8	7.3	2.9	6.1	
OFL-931	6.9	6.3	6.0	5.3	6.8	6.2	5.8	6.2	6.0	6.7	8.0	6.5	6.2	5.5	5.7	5.6	7.4	6.7	6.3	5.8	4.1	7.3	5.7	6.8	7.0	2.6	6.1	
REBEL SENTRY (AA-A91)	6.0	6.6	5.3	6.0	6.6	6.4	5.7	6.5	6.0	6.3	7.0	6.7	6.4	5.8	5.8	5.7	7.4	6.0	5.2	4.0	7.2	6.0	7.1	7.0	2.6	6.1		
MUSTANG II	7.1	6.8	6.0	5.2	7.1	6.3	5.8	7.7	5.7	6.5	7.5	7.2	6.3	6.2	4.7	5.5	6.7	6.3	6.7	5.5	4.1	7.1	5.7	6.2	6.5	2.3	6.0	
OFL-FMV	7.0	6.3	6.0	5.3	6.2	6.1	5.3	6.1	5.9	6.1	7.5	7.4	6.0	5.0	5.5	5.6	7.8	7.0	5.0	5.1	4.2	7.6	5.5	6.4	6.7	2.4	6.0	
ONCUE (PST-523)	6.8	6.0	5.8	6.7	6.1	5.9	6.7	6.1	5.9	6.7	7.0	6.3	6.3	5.0	6.0	6.1	7.3	7.0	6.0	5.3	3.8	7.1	5.5	7.1	7.0	2.8	6.0	

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TABLE 1. (CONT'D)

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE
1997-2000 DATA

NAME	LEAF TEXTURE RATINGS 1-9; 9=VERY FINE																										
	AR1	GA1	CA3	DE1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	M11	M01	M03	MS1	NE1	NE2	NJ1	NJ2	OK1	SC2	VA1	VA4	WA1	MEAN		
PICK FA UT-93	6.6	6.5	5.7	4.8	6.1	6.9	4.8	5.3	6.0	6.7	7.0	5.8	6.0	6.2	6.3	5.7	7.3	6.8	6.7	5.4	4.5	7.3	5.7	6.6	6.0		
REGIMENT	6.7	6.4	6.0	5.3	6.1	6.1	5.5	6.5	5.8	6.8	6.9	6.5	6.4	5.5	5.5	5.0	7.2	6.8	6.3	5.3	3.8	7.0	5.8	6.8	6.0		
RED COAT (ATF-038)	6.7	7.1	6.0	5.7	6.3	5.7	5.3	6.9	6.4	6.3	7.7	6.8	6.6	5.3	5.8	5.7	6.8	6.7	5.0	4.6	4.2	7.0	5.7	6.9	6.3		
COCHISE II	7.1	6.3	6.0	5.0	6.9	6.4	5.7	6.2	5.7	6.3	7.0	6.3	6.2	5.3	5.8	6.0	7.1	6.4	5.0	5.5	4.3	7.3	5.5	6.8	7.0		
APACHE II	7.2	6.6	6.3	5.8	7.4	6.0	5.4	5.5	6.3	6.7	6.3	6.1	5.7	5.3	5.1	5.7	7.2	6.8	5.0	5.7	4.0	7.2	5.7	6.3	7.0		
BAR FA6 US2U	7.0	6.5	5.3	5.5	7.0	6.9	5.7	6.3	5.8	6.9	7.7	6.3	6.2	5.7	5.3	5.4	7.0	6.3	5.0	4.7	3.8	7.3	5.7	6.3	7.0		
OFI-96-31	5.8	6.5	6.0	5.2	6.3	5.1	5.8	5.9	5.8	6.3	7.6	6.2	6.2	5.3	6.1	5.6	7.3	6.4	5.7	5.3	3.9	7.1	5.5	7.3	7.0		
BANDANA (PST-R5AE)	5.8	7.0	5.7	5.2	6.9	6.6	5.3	6.4	5.5	6.5	7.3	6.7	6.3	5.2	5.8	5.8	7.2	6.7	5.3	5.4	3.9	7.3	5.5	6.6	6.3		
OLYMPIC GOLD (PST-S5E5)	6.3	6.6	6.0	5.7	7.4	6.0	5.3	6.3	5.7	6.4	7.7	6.3	6.2	5.2	5.9	5.6	7.3	6.5	4.7	6.1	3.5	7.2	5.7	6.7	6.0		
CORONADO	6.5	6.5	5.7	5.8	6.9	6.8	5.7	6.0	5.6	6.6	7.0	6.2	6.2	5.5	5.8	5.3	7.0	6.2	5.0	5.4	4.0	7.3	5.7	6.8	6.3		
ATF-257	6.4	6.8	6.3	5.7	6.4	5.4	5.6	7.2	5.7	6.0	7.3	6.5	6.1	5.3	5.8	5.9	6.8	6.5	5.3	5.8	4.0	7.2	5.5	6.7	5.7		
EA 41	6.2	6.8	5.7	5.2	6.8	5.8	6.4	5.7	6.0	5.6	6.6	6.3	6.1	5.5	6.0	5.9	7.0	6.0	5.0	4.6	7.2	5.5	6.5	7.3	3.0		
DP 50-9011	6.3	6.6	6.3	4.7	6.0	6.3	5.2	6.0	5.0	5.8	6.3	7.1	7.0	5.9	5.3	6.8	7.2	6.4	5.7	4.8	4.1	7.4	5.3	7.2	6.3		
RESERVE (ATF-182)	7.2	6.9	6.0	5.8	6.5	6.1	5.3	6.6	5.6	6.4	7.0	6.5	6.2	4.7	5.6	5.4	7.3	6.6	4.7	5.2	4.1	7.3	5.7	6.7	6.3		
ARABIA (J-55)	6.0	6.7	5.7	5.0	6.1	6.2	5.5	6.2	5.8	5.6	6.6	7.6	6.3	6.1	5.3	5.8	6.1	7.2	6.4	5.0	4.9	3.9	7.3	5.7	6.3	2.4	
PST-5TO	6.4	7.2	5.7	5.2	6.9	5.5	5.3	5.6	5.6	5.6	6.4	7.2	6.3	6.3	4.8	6.3	7.3	6.8	6.0	5.8	3.7	7.0	5.7	6.1	6.3	2.1	
R5AU	6.4	6.5	6.0	5.3	7.0	6.3	5.4	7.0	5.7	6.3	6.8	6.7	6.3	5.7	5.4	7.3	6.3	5.7	4.9	3.7	7.2	5.5	6.5	6.0	2.3		
PICK FA N-93	5.8	6.7	6.0	5.5	6.3	6.4	5.4	5.7	6.0	5.8	6.8	7.7	6.3	6.1	5.5	6.2	5.7	6.9	6.4	4.7	5.2	3.7	7.3	6.0	6.1	6.3	
WOLFPACK (PST-R5TK)	5.8	7.2	6.0	5.5	6.6	6.1	5.8	6.1	5.8	6.7	5.9	6.9	6.2	5.9	5.5	5.8	5.2	7.3	7.0	4.3	5.8	3.6	7.3	5.7	6.3	2.4	
TF 66 (BAR FA6 US6F)	6.3	6.3	6.0	5.3	6.7	5.8	5.3	6.4	5.6	5.6	6.9	7.7	6.2	5.9	5.5	5.8	5.2	7.1	6.2	6.0	4.9	4.0	7.0	5.7	6.2	7.7	
WX3-275	5.9	6.3	6.0	5.5	6.6	5.6	5.2	6.5	5.4	6.2	7.0	6.3	6.2	5.3	5.6	5.6	7.2	6.7	6.3	5.3	3.9	7.1	5.5	7.1	7.0	2.3	
DUSTER	6.3	6.3	5.7	5.3	6.4	5.8	5.6	6.0	5.8	6.5	7.2	6.3	6.3	5.5	5.0	5.3	5.0	6.8	6.0	5.0	4.0	7.3	5.7	6.3	6.7	2.7	
PRO 8430	6.0	6.6	6.0	5.5	7.0	6.3	5.7	6.7	5.8	6.2	7.4	6.3	6.0	5.2	5.6	5.8	7.2	6.1	4.3	5.7	4.0	7.3	5.5	6.3	6.0	2.3	
DURANA (MB 211)	5.8	6.3	5.7	5.3	6.4	5.5	5.3	5.7	6.3	5.7	6.4	7.6	6.0	6.3	5.5	5.9	5.9	7.2	6.3	5.0	4.7	3.7	7.0	5.8	6.8	6.7	
MB 29	6.5	6.1	5.3	5.2	6.5	5.9	5.8	6.0	5.6	5.6	7.1	8.0	6.2	6.2	5.2	6.0	5.4	7.2	6.7	4.3	4.8	3.7	7.1	6.0	6.4	6.7	
MB 213	6.3	6.0	5.7	5.7	6.5	6.7	6.5	6.4	6.4	6.2	7.3	7.8	6.0	6.5	6.3	5.7	6.5	7.9	6.5	5.0	6.1	4.1	7.1	5.5	6.2	6.7	
MB 214	6.3	6.6	6.0	4.8	6.7	6.1	5.4	6.4	6.2	6.5	7.0	6.2	6.3	5.2	5.5	5.9	7.2	6.3	4.7	5.5	3.7	7.1	5.7	7.0	5.7	2.6	
ATF-022	6.6	6.2	5.3	5.3	6.8	6.0	5.3	6.6	5.6	6.3	7.0	6.2	6.0	5.2	5.5	5.9	7.2	6.2	4.7	5.5	3.9	7.0	5.5	6.8	6.3	2.4	
CUP901T	6.0	6.7	6.0	4.8	6.8	5.8	5.1	5.8	6.1	5.4	6.9	6.8	6.2	5.4	5.8	5.7	7.1	6.4	4.7	5.0	4.1	7.3	5.5	6.4	6.3	2.3	
SOUTHERN CHOICE	6.3	6.3	5.3	4.3	6.6	6.1	5.3	5.8	6.1	5.4	6.9	6.2	6.0	5.5	5.2	5.8	5.7	7.1	6.5	5.3	5.6	7.1	6.7	5.5	6.3	5.8	
ARIZONA (PICK FA 6-91)	6.3	6.8	6.0	5.2	7.1	6.4	5.2	5.8	5.5	6.1	7.3	6.0	5.9	4.8	5.4	5.8	7.1	6.7	4.3	5.8	3.8	7.1	5.7	6.3	6.7	2.3	
TAR HEEL	6.3	6.7	5.7	5.5	6.3	5.8	5.2	6.0	5.6	5.6	6.4	6.6	6.2	6.0	5.2	5.6	5.6	7.3	6.5	5.0	6.1	4.1	7.1	5.5	6.2	6.7	
ALAMO E	6.3	6.0	6.6	5.0	6.1	6.2	5.8	6.4	6.0	5.6	6.4	6.6	6.2	6.0	5.2	5.6	7.3	6.5	5.0	6.1	4.1	7.1	5.5	6.2	6.7	5.8	
ATF-024	6.6	6.2	5.7	5.1	6.0	6.2	5.6	5.8	5.2	5.0	6.5	7.3	6.8	6.0	5.5	5.9	7.2	6.3	4.7	5.5	3.9	7.0	5.5	6.8	6.3	2.4	
CUP901T	6.0	6.7	6.0	4.8	6.8	5.8	5.0	5.4	6.2	5.2	7.3	6.2	6.0	5.0	5.2	5.6	7.2	6.3	5.0	4.4	3.7	7.1	5.5	6.5	7.0	2.6	
CORONADO GOLD (PST-S5RT)	5.7	6.3	6.0	5.1	6.3	5.4	5.6	5.8	6.4	7.1	6.6	6.2	5.5	5.8	5.8	5.2	7.1	6.5	5.7	5.0	4.7	5.2	3.8	6.9	5.7	6.0	7.7
BRAGO (RG-93)	6.3	6.6	5.7	5.7	6.6	6.0	5.1	5.8	5.5	6.3	6.8	6.3	6.7	5.5	5.9	5.6	6.9	6.1	5.0	4.6	4.0	6.9	5.5	6.3	6.7	2.3	
MB 214	6.0	6.6	6.0	5.0	6.1	6.2	5.8	6.4	5.3	5.6	6.7	7.0	6.3	6.1	5.7	5.9	7.2	6.3	4.7	4.3	4.0	6.8	5.8	6.8	6.3	2.3	
ATF-020	6.0	6.6	6.0	5.2	6.2	5.8	5.2	6.7	5.3	6.7	6.2	6.7	6.2	6.0	5.3	5.9	5.6	7.3	6.0	3.7	3.8	7.1	5.7	6.7	6.7	2.4	
VELOCITY (AA-9833)	6.0	6.3	6.0	5.3	6.6	6.3	5.4	5.4	5.3	6.3	6.6	6.0	6.3	5.0	5.9	5.4	7.3	6.3	5.7	5.0	4.4	3.7	7.1	5.7	5.8	6.0	2.3
JTFIA-96	6.1	6.9	6.0	4.8	6.1	5.7	4.8	5.6	5.6	5.7	7.1	6.0	6.2	4.8	5.4	5.2	6.8	6.6	4.7	5.8	4.3	7.5	5.2	6.8	6.7	2.4	
ARID 11 (J-3)	5.8	6.1	5.3	4.8	6.4	6.3	4.9	6.2	5.4	6.3	6.7	6.0	6.0	5.6	5.6	5.7	7.2	6.3	4.0	5.6	4.1	7.0	5.5	6.7	6.7	2.7	
PIXIE E+	6.3	6.0	5.7	5.5	6.4	7.0	5.1	5.5	6.0	6.9	6.0	5.9	5.0	5.6	5.3	5.7	7.1	6.4	4.3	4.8	3.9	7.0	5.7	6.2	6.0	2.8	
FALCON 11	6.2	6.0	5.3	5.3	6.7	5.9	5.0	5.5	5.7	6.4	6.9	5.8	6.0	5.5	5.5	5.7	7.0	6.2	5.3	5.1	3.9	7.3	5.5	6.8	6.0	2.1	

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EXHIBIT B

TABLE 2. (CONT'D)

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS
1997-2000 DATA

NAME	LEAF TEXTURE RATINGS 1-9; 9=VERY FINE																											
	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	OH1	OK1	SC2	VA1	VA4	WA1	MEAN	
SRX 8084	5.6	6.7	5.7	5.0	6.4	6.4	5.4	6.1	5.0	6.3	7.1	6.0	6.2	4.8	5.3	5.6	7.0	6.4	4.3	5.0	3.7	7.0	5.5	6.6	6.7	2.3	5.7	
KITTY HAWK S.S.T. (SS45DW)	5.8	6.3	5.7	5.5	6.6	6.6	5.2	5.5	5.4	6.3	6.8	6.2	6.1	5.2	6.0	5.6	7.1	6.5	3.7	5.1	4.0	7.0	5.5	6.2	6.0	2.3	5.7	
1ST-TF11	5.7	6.3	5.7	5.7	6.4	5.8	5.3	5.8	4.9	6.0	7.7	5.8	6.1	4.8	6.0	5.4	6.8	6.6	4.3	5.3	3.9	7.1	5.7	6.3	6.3	2.0	5.7	
REBEL 2000 (AA-989)	5.8	6.0	6.0	5.0	6.5	5.8	5.2	5.4	5.3	6.2	6.3	5.8	6.4	5.2	5.5	6.1	7.1	6.0	5.7	4.1	4.3	7.0	5.8	6.6	6.0	2.2	5.7	
PEDESTAL (PC-AO)	5.6	5.8	6.0	5.3	6.3	6.1	5.0	5.2	5.5	6.0	8.1	6.3	6.0	5.5	5.5	5.2	6.9	7.0	4.0	4.3	3.7	7.2	5.5	6.3	6.3	2.3	5.7	
SAFARI	5.5	6.2	6.0	5.8	6.6	5.7	5.3	5.7	5.6	6.1	7.1	6.2	6.2	5.2	4.8	5.6	7.0	6.4	4.7	3.9	7.1	5.5	6.1	6.3	2.4	5.6		
MB 215	5.7	6.1	5.7	4.8	5.8	6.3	5.9	5.2	5.4	6.3	7.1	6.0	6.1	5.2	5.4	5.6	7.2	6.2	5.0	4.1	4.1	7.0	5.3	6.9	6.3	2.2	5.7	
CHAPEL HILL (TA-7)	5.6	5.8	6.0	5.8	6.3	5.9	5.2	5.5	5.5	6.3	7.8	6.0	6.2	5.0	5.6	5.7	7.1	6.2	4.7	4.4	4.1	7.0	5.3	6.2	5.7	2.2	5.6	
SHIENANDOAH	6.3	6.1	5.7	5.7	5.6	5.9	5.3	5.6	5.4	6.1	7.0	6.3	6.3	5.5	5.4	5.1	7.2	6.6	3.7	4.7	3.9	7.1	5.5	6.1	6.3	2.4	5.6	
TITAN 2	5.0	5.8	5.0	5.3	6.4	5.7	5.3	5.8	5.2	6.2	7.0	6.2	6.0	5.7	5.6	5.7	6.8	6.3	4.7	3.9	7.1	5.5	6.1	6.3	2.4	5.6		
ATF-253	6.4	6.4	6.0	5.5	6.2	6.0	4.9	6.7	5.4	5.9	6.7	6.3	5.8	4.8	5.3	6.6	4.3	5.4	4.2	7.3	5.5	6.3	6.3	2.3	5.6			
GLEN EAGLE (EC-101)	5.8	6.0	5.7	5.7	6.5	5.6	4.9	5.1	5.2	6.1	7.6	6.0	6.3	4.8	5.3	5.1	6.6	6.3	4.3	4.9	4.1	7.0	5.5	5.9	6.0	2.6	5.6	
BONSAI	5.5	6.2	6.0	6.0	5.0	5.0	5.8	5.2	6.0	5.0	6.2	7.2	5.7	6.0	5.2	5.8	5.4	6.1	4.3	4.6	4.0	6.9	5.5	6.6	6.0	2.3	5.6	
TWILIGHT II (TM1-TW)	5.5	6.6	5.7	5.3	5.9	6.0	5.0	6.2	5.1	6.1	7.3	6.6	6.7	5.2	6.1	5.1	7.3	6.5	4.7	3.9	7.0	5.5	6.5	6.0	2.4	5.6		
1ST-TF10	6.4	5.7	6.0	5.7	6.0	6.1	5.7	5.0	5.8	6.5	6.3	5.7	5.9	5.0	5.6	5.7	6.8	6.3	4.7	4.3	3.7	6.9	5.7	6.6	6.3	2.4	5.6	
MB 28	5.7	5.9	4.7	5.8	6.1	6.3	5.3	6.0	5.2	6.3	6.3	6.7	6.2	6.0	4.8	5.3	6.4	6.1	4.7	4.3	3.9	7.2	5.5	6.7	6.3	2.2	5.6	
GENESIS	5.8	5.8	5.0	5.2	6.4	6.1	5.0	4.9	5.6	5.1	6.1	7.6	6.0	5.6	4.8	5.6	5.1	7.0	6.2	5.7	4.5	3.8	6.9	6.2	5.8	6.3	2.2	5.6
LEPRECHAUN	5.5	5.8	5.3	5.7	6.8	5.8	4.9	5.2	5.3	6.1	7.0	6.6	5.6	5.0	5.2	5.5	6.7	6.3	5.0	3.8	3.9	7.1	5.7	6.5	6.3	2.3	5.6	
GOOD-EN (KOOS 96-14)	5.8	5.8	5.3	6.0	6.2	5.5	5.2	4.9	4.7	6.0	6.4	6.0	6.2	5.0	5.3	5.6	6.5	6.3	4.3	4.9	3.8	7.1	6.0	6.2	5.3	2.3	5.6	
MARKSMAN	6.8	6.2	6.7	5.0	6.7	5.2	5.0	5.2	4.9	4.7	6.0	6.0	6.2	5.0	5.3	5.6	6.5	7.3	6.3	4.3	4.7	4.3	7.0	5.7	6.8	6.3	2.2	5.6
WPB-1B	5.7	6.2	4.7	5.2	6.2	5.8	5.0	5.3	5.1	6.3	7.3	5.8	6.0	4.3	5.1	5.4	7.2	6.3	4.3	4.8	3.7	7.0	5.7	6.4	6.3	2.1	5.5	
AXIOM (ATF-192)	6.2	6.5	6.0	5.2	6.3	5.8	5.3	5.4	5.3	6.1	6.7	5.8	6.0	5.3	5.8	5.3	6.8	6.2	5.0	4.3	3.9	6.9	5.5	6.3	6.3	2.2	5.5	
MB 216	6.1	5.6	5.0	5.2	6.7	5.8	5.3	5.3	5.2	5.9	6.1	6.2	5.8	5.5	4.6	5.7	6.3	5.9	4.3	4.9	3.8	6.9	5.5	6.3	5.7	2.3	5.5	
RENEGADE	5.7	5.8	5.7	5.0	6.2	6.2	4.9	5.8	5.1	6.0	6.8	5.3	6.8	4.5	5.6	5.3	7.2	6.8	3.7	3.5	4.1	6.8	5.8	6.8	6.3	2.1	5.5	
OF1-96-32	5.3	6.0	6.0	5.5	6.4	6.0	5.4	5.2	6.3	6.7	5.8	6.0	5.2	5.5	4.8	5.4	6.9	6.7	6.3	3.7	3.9	3.7	7.0	5.5	6.2	6.7	2.0	5.5
COMSTOCK (SSDE31)	5.8	6.0	5.8	6.2	5.8	5.1	4.8	5.1	5.3	6.1	6.7	5.8	6.0	5.3	5.6	5.7	6.7	6.4	4.7	4.3	3.7	7.0	5.7	6.4	6.0	2.1	5.5	
FINE LAWN PETITE	5.5	6.1	5.7	5.3	6.1	5.7	4.9	5.2	5.0	5.9	6.2	5.7	6.2	4.8	5.9	5.4	7.1	6.1	4.7	3.8	4.2	7.0	5.5	6.3	6.3	2.1	5.5	
HELIX (WPB-1D)	6.7	5.9	5.0	5.5	6.4	5.7	4.7	4.4	4.8	5.7	6.4	5.8	6.1	5.2	4.6	5.3	7.1	6.3	5.7	4.7	4.1	7.0	5.5	6.3	6.0	1.9	5.5	
EQUINOX (TM1-N91)	4.8	6.6	5.7	5.5	6.1	5.9	4.8	5.1	5.9	4.8	6.3	6.2	6.0	6.0	4.3	4.8	4.9	6.7	5.9	5.7	4.7	4.1	7.0	5.5	6.3	5.3	2.2	5.5
WPBZ (WPB-1C)	5.3	6.1	5.0	5.7	6.6	6.1	4.6	4.7	4.9	5.8	6.9	5.5	6.0	4.8	5.0	5.7	6.4	6.3	3.3	4.5	3.8	6.9	5.7	6.0	6.0	2.0	5.5	
LION	5.4	6.3	5.7	5.5	6.3	5.3	5.8	4.5	5.8	6.4	5.5	6.0	4.8	5.2	5.6	5.8	6.5	5.7	5.0	4.3	3.8	7.0	5.5	6.0	6.7	2.0	5.5	
PSI1-TF-10	5.5	5.4	4.7	5.5	6.0	5.9	5.2	5.3	5.1	6.1	6.4	5.7	6.2	4.5	4.8	5.4	7.1	6.5	3.7	4.7	3.8	6.9	5.5	5.6	5.3	2.2	5.4	
JSC-1	4.4	5.8	5.0	5.3	6.0	5.8	4.9	4.3	4.8	5.7	6.2	6.2	6.2	4.7	5.4	5.2	6.4	6.3	2.0	3.5	3.9	6.9	5.2	6.3	5.7	1.7	5.4	
PSI1-TF-9	5.2	5.5	5.3	5.0	6.2	5.3	4.8	5.5	5.3	5.6	6.7	5.5	5.8	4.2	5.0	5.7	6.4	6.3	2.0	3.4	3.8	6.8	5.5	6.6	5.3	1.7	5.4	
DLF-1	5.0	5.7	6.0	6.0	5.8	5.8	4.9	4.6	4.4	6.0	5.9	5.2	6.2	5.6	5.8	6.5	5.7	6.4	3.3	4.5	3.8	6.9	5.7	6.1	6.3	1.9	5.3	
JTF-96	4.8	6.1	5.0	5.3	5.8	6.1	4.7	4.9	5.2	5.8	7.0	5.2	6.0	4.2	4.5	4.8	5.4	6.8	6.3	4.7	3.8	6.8	5.5	7.4	5.3	1.9	5.3	
ARD	5.0	5.8	5.7	6.5	5.6	5.2	4.6	4.2	5.0	5.0	6.1	6.2	5.8	4.5	5.2	5.5	6.4	6.3	3.0	4.3	3.8	7.0	5.5	5.9	5.3	1.7	5.2	
AV-1	4.7	5.8	4.3	5.2	5.6	5.7	4.9	4.3	4.0	5.6	5.2	5.0	6.3	4.5	4.8	5.1	6.3	6.0	2.0	3.5	3.9	6.9	5.2	6.3	5.7	1.4	5.1	
DP 7952	4.7	5.8	4.7	5.7	5.4	5.8	4.3	4.0	4.8	5.4	5.7	5.3	5.3	4.5	4.5	4.8	5.1	6.3	6.0	2.0	3.4	3.8	6.8	5.5	6.6	5.3	1.7	4.9
KENTUCKY-31 W/ENDO.	2.9	2.6	4.0	5.2	4.2	3.3	2.3	2.9	3.8	4.0	3.7	5.3	3.0	3.3	4.7	5.0	5.1	1.0	1.1	3.4	5.5	4.7	4.0	3.0	1.1	3.6	1.1	
LSD VALUE	0.7	0.7	0.6	0.6	0.7	0.6	0.5	0.9	0.7	0.7	0.6	0.9	0.7	0.7	0.6	0.9	0.7	1.2	1.0	2.1	1.0	2.1	1.0	2.1	0.7	0.9	0.5	
C.V. (%)	14.3	12.8	8.0	19.9	10.1	13.4	12.8	23.7	10.8	18.5	10.3	9.2	9.7	14.6	18.8	14.1	21.6	18.5	24.9	19.9	48.9	54.5	15.3	13.3	8.8	22.7	17.3	

200200229

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.
 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

9.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY

TALL & MEADOW FESCUES

(Festuca spp.)

(05/2001) South Carolina and Agriculture & Forestry Research System
 NAME OF APPLICANT(S)
Jas. Cebecco International Seeds, Inc.

TEMPORARY DESIGNATION
CU 9502TVARIETY NAME
Tomcat

ADDRESS (Street and No., or R.R.D. No., City, State, and Zip Code)

P.O. Box 229 104 Barr Hall Halsey, OR 97348 Clemson, SC 29634

FOR OFFICIAL USE ONLY

PVPO NUMBER

200200229

Place the appropriate number that describes the varietal character of this variety in the boxes below. Use leading zeroes when necessary (e.g., 0 8 9 or 0 9). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used: 1-9; 9=dark green

Describe location of test area, conditions and number of plants used Tangent, OR3 replications of 20 plants/variety

1. SPECIES: (With comparison varieties for use below — use varieties within species of application variety)

 11 = *F. arundinacea* (Tall)

11 = Alta

12 = Fawn

13 = Goar

14 = Kentucky-31

15 = Festal

16 = S.170

17 = Rebel

18 = Manade

19 = Kenhy

20 = Missouri 96

 2 = *F. pratensis* (Meadow)

21 = Ensign

22 = Trader

23 = Beaumont

24 = Admira

25 = Comtessa

2. CYTOLOGY:

 4

2 Chromosome Number

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

 2

Transition Zone

 2

West

Other (Specify) _____

4. MATURITY: (Date First Headed, panicle emergence) Location(s) of Trial(s)

 4

Maturity Class:

1 = Very early ()

2 = Early (Alta, Fawn, S.170)

3 = Medium early (K31, Falcon)

4 = Medium late (Barundi, Rebel,

Ensign, Kenhy)

Date Headed May 9

 0 5

Days earlier than Bonsai

Maturity same as

Comparison Variety

 0 5

Days later than

 1 4

5. PLANT HEIGHT (Average of 10 tallest culms):

 7 9 0 6

mm Height (at maturity to top of panicle)

 1 7 9

mm Shorter than Falcon

Mature Height same as Empress

Comparison Variety

 1 1 6 5

mm Taller than Bonsai

 3 9 7 0

mm Height (at ear emergence)

 1 5 9

mm Shorter than

 1 4

Emergence height same as Renegade

Comparison Variety

 1 3 0

mm Taller than Bonsai

5. PLANT HEIGHT: (Continued)

2002002029

1	3	8	mm Internode length (spring)	
5	1	mm Shorter than	1	4
Internode same as Empress				
mm Longer than N/A				
3	5	8	mm Width of plant (at ear emergence)	

Comparison Variety

6. GROWTH HABIT (Mature):

- 1 = Erect, foliage stiff-upright (Kentucky 31) 2 = Semi-erect (Beaumont, Rebel)
 3 = Lax (Aberystwyth S.53)

7. RHIZOMES (Pseudo):

mm Length	1	1 = Absent	2 = Rare (Rebel)	3 = Common
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8. LEAF BLADE:

3	Color:	1 = Light Green (Roa) 3 = Medium Dark Green (Rebel)	2 = Medium Light Green (Beaumont, Kentucky 31) 4 = Dark Green ()			
2	Anthocyanin:	1 = Absent	2 = Present	<input type="checkbox"/> Hairs (Basal)	1 = Absent	2 = Present
2	Margins:	1 = Smooth	2 = Semi-rough	3 = Rough		
1	Width Class:	1 = Fine () 4 = Coarse (Keny)	2 = Medium Fine (Rebel, Monaco) 5 = Very Coarse (Hazel)	3 = Medium Coarse (K-31, Barundi)		
1	1	8	mm Length (Flag Leaf)			
5	1	mm Shorter than	1	4		
Blade length same as Wrangler						
4	9	mm Longer than Bonsai				
mm Width						
mm Narrower than Bonanza						
Blade width same as Crewcut						
mm Wider than N/A						

Comparison Variety

Comparison Variety

9. LEAF SHEATH:

- 2 Anthocyanin (seedling): 1 = Absent (Kentucky 31) 2 = Present (Keny, Forager)
 1 Auricle Hairiness: 1 = Absent 2 = Present

10. PANICLE (Mature Plant):

3	Shape:	1 = Narrow-tapering	2 = Ovate	3 = Oblong	4 = Other (Specify) _____
2	Type:	1 = Open	2 = Intermediate	3 = Compact (appressed)	
1	Orientation:	1 = Erect	2 = Nodding		
1	Branch Pubescence:	1 = Glabrous	2 = Pubescent		
1	Anther Color:				
4	Glume Color (At 50% Flowering):	1 = Yellowish Green 4 = Purplish	2 = Green 5 = Reddish	3 = Bluish Green 6 = Other (Specify) _____	

10. PANICLE: (Continued)

 1 3 8

mm Length (from base of panicle branch to the tip)

 4 9

mm Shorter than

 1 4Panicle length same as Renegade 3 0mm Longer than Bonsai

Comparison Variety

11. PALEA:

 2

HAIRS (On keels or margins):

1 = Absent

2 = Short (Missouri 96)

3 = Long (. . .)

12. LEMMA:

 2

HAIRS: 1 = Absent (Keny)

2 = Several

3 = Many (Missouri 96)

 5 9

mm Lemma Length (Mature)

 0 2mm Shorter than Empress Lemma length same as Masterpiece

Comparison Variety

 mm Longer than N/A 1 3 2

mm Lemma Width

 mm Narrower than Wrangler Lemma width same as Rembrandt

Comparison Variety

 mm Wider than . . . N/A 2

AWNS: 1 = Absent (Beaumont)

2 = Present (Falcon, Barundi)

 1 1

mm Awn Length

 0 1mm Shorter than Talisman Awn length same as Silverado

Comparison Variety

 0 1mm Longer than Mini Mustang

13. SEED (With Lemma & Palea):

 2 6 7 7

mg per 1000 seed

 1 0 5mg per 1000 seed less than Falcon II Seed weight same as Silverado

Comparison Variety

 4 1 5mg per 1000 seed more than Mini Mustang

14. DISEASE, INSECT, AND NEMATODE REACTION (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

 0Melting-out *Drechslera poae*
(*Helminthosporium vagans*) 0Blind Seed *Globotinia temulenta* 0Leaf Spot *D. siccans* 0S. Patch *Sclerotinia homoeocarpa* 2Net Blotch *D. dictyoides* 0Stripe Smut *Ustilago striiformis* 2Brown Patch *Rhizoctonia solani* 0O. Patch *Ophiobolus graminis* 0C. Leaf Spot *Cercospora fuscata* 0T. Blight *Typhula incarnata* 0Pink Snow Mold *Fusarium nivale* 0Pythium Blight *Pythium spp.* 0Silver Top *F. tricinctum, F. roseum* 0Powdery Mildew *Erysiphe graminis* 0Crown Rust *Puccinia coronata* 2Nematode Fusarium patch

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14. DISEASE, INSECT, AND NEMATODE REACTION: (Continued)

<input type="checkbox"/>	Insect _____
<input type="checkbox"/>	Other _____
<input type="checkbox"/>	Other _____

15.

1 PHOTOPERIOD: 1 = Non-sensitive 2 = Sensitive

16.

2 WINTER HARDINESS: 1 = Susceptible 2 = Resistant

17. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing in the column marked, D.R., one of the following numbers:

1 = Application variety is less than comparison variety 2 = Same as
3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Leaf Width	Shortstop	2	Leaf Color		
Panicle Color			Panicle Shape		
Seed Size	Shortstop	2	Cold Injury		
Winter Color			Heat		
Shade Tolerance			Disease* Fusarium patch	Shortstop	3
Drought Tolerance					

* Specify each disease evaluated.

18. ADDITIONAL DESCRIPTION: (Use additional sheets as required)

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease tests.

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Table 1. Heading dates in Julian days of tall fescue varieties grown near Tangent, Oregon.

	2000	2001	Average
KY-31	123.4	124.7	124.1
Falcon	126.5	128.7	127.6
Rebel II	127.8	127.3	127.6
Bonanza	131.7	131.9	131.8
Grande	129.6	130.3	130.0
Wrangler	127	129.5	128.3
Falcon II	128.1	128.9	128.5
Lancer	130.6	128.7	129.7
Crossfire II	127.4	126.8	127.1
SR 8200	132.9	129.9	131.4
Mustang II	128.6	126.1	127.4
Empress	129.5	129.8	129.7
Tomcat	129.4	130.3	129.9
Renegade	131.8	133.4	132.6
Shortstop	133.5	130	131.8
Crewcut	130	128	129.0
Tomahawk	127.5	128.9	128.2
Mini-Mustang	132	130.1	131.1
Pick RT-95	130	127.8	128.9
Talisman	132.6	128.9	130.8
Rebel Jr	132.8	129.8	131.3
Rembrandt	132.9	128.8	130.9
Shenandoah II	134.9	127.4	131.2
Pick MT3	129.6	130.6	130.1
Silverado	133.9	131.3	132.6
Masterpiece	129.7	128.9	129.3
Watchdog	125.5	125.7	125.6
Scorpion	129.1	129.8	129.5
Bonsai	135.5	133.7	134.6

LSD @ 0.05 3 2.9

Table 2. Morphological traits of tall fescue varieties grown near Tangent, Oregon.

	Mature Plant Height (cm)			Internode Length (cm)			Flag Leaf Length (cm)			Tiller Leaf Length (mm)			Panicle Length (cm)		
	2000	2001	Average	2000	2001	Average	2000	2001	Average	2000	2001	Average	2000	2001	Average
KY-31	101.40	103.10	102.25	55.11	56.06	55.59	19.47	18.40	18.94	8.37	8.45	8.36	4.70	4.16	4.74
Falcon	95.20	98.76	96.98	48.90	51.99	50.45	17.95	20.06	19.01	8.55	11.76	13.16	4.65	4.16	5.43
Rebel II	87.40	84.42	89.16	46.14	42.39	44.27	17.31	14.55	15.93	9.70	17.62	13.66	4.78	4.17	5.45
Bonanza	93.89	84.42	89.16	49.07	43.53	46.30	17.26	9.99	13.63	5.07	13.28	10.00	5.46	4.73	5.79
Grande	89.91	81.04	85.46	44.45	36.28	40.37	15.24	12.81	14.03	10.19	15.14	12.67	3.64	3.98	3.81
Wrangler	83.84	85.95	84.90	39.95	47.59	43.77	15.68	15.64	15.64	10.98	14.65	12.29	4.50	3.77	4.50
Falcon II	86.94	82.19	84.57	41.58	40.10	40.84	16.01	13.29	14.44	10.98	13.29	11.37	4.39	3.93	4.86
Lancer	81.30	88.77	83.59	40.29	30.01	35.15	14.23	17.58	15.91	6.30	16.44	11.37	2.71	3.25	3.74
Crossfire II	80.01	85.56	82.79	34.78	40.36	37.57	13.01	16.84	14.93	7.27	14.04	10.66	3.27	3.99	5.54
SR 8200	82.23	81.00	81.82	43.01	39.87	41.44	14.50	14.29	14.40	8.64	14.15	12.66	4.55	4.11	5.68
Mustang II	78.76	84.18	81.47	38.41	45.77	42.09	14.27	14.51	14.39	5.55	14.94	10.25	2.78	3.95	4.85
Empress	77.10	83.64	80.37	34.22	40.69	37.46	12.32	15.40	13.86	5.96	13.20	9.58	2.79	3.78	5.97
Tomcat	79.47	78.65	79.06	39.37	40.03	39.70	15.02	12.64	13.83	8.77	14.88	11.82	3.08	3.83	4.61
Renegade	82.65	74.98	78.82	41.01	43.64	38.83	13.20	13.75	9.50	12.82	11.06	3.20	3.54	3.37	4.70
Shortstop	76.64	80.85	78.80	37.88	38.46	38.31	12.20	12.57	7.66	12.48	10.07	3.22	4.40	4.40	4.88
Crewcut	78.73	78.03	78.38	38.62	38.31	38.47	14.10	14.52	14.31	8.64	11.97	10.30	2.98	3.46	4.79
Tomahawk	78.79	77.90	78.35	38.31	38.62	38.31	14.65	14.62	14.55	14.60	14.60	14.10	9.96	9.93	11.65
Mini-Mustang	66.18	83.86	75.02	30.82	35.53	40.23	14.01	12.71	5.83	13.39	9.61	2.50	4.16	3.89	4.56
Pick RT-95	73.37	76.49	74.93	33.62	34.87	36.12	13.33	11.25	12.29	6.47	10.06	8.26	2.52	3.63	3.07
Talisman	71.65	74.25	72.95	32.67	35.83	34.25	11.07	11.23	11.15	7.05	10.72	8.88	3.11	4.06	3.58
Rebel Jr	71.20	74.64	72.92	32.87	40.21	36.54	11.45	11.49	11.47	7.36	12.90	10.13	3.44	4.26	3.85
Rembrandt	68.47	76.36	72.42	29.89	36.55	33.22	10.84	11.36	11.36	5.60	14.09	9.85	2.70	4.05	6.55
Shenandoah II	70.72	71.44	72.15	33.54	34.28	33.91	13.35	12.33	12.84	11.27	8.66	2.94	4.16	3.55	4.39
Pick MT3	71.60	68.91	70.26	33.81	34.60	34.21	12.42	13.30	12.86	6.85	10.68	8.77	2.98	3.69	3.33
Silverado	64.22	74.56	69.39	27.92	33.03	30.48	10.66	11.58	11.12	6.87	10.83	8.85	4.11	3.59	4.49
Masterpiece	72.82	65.49	69.16	31.84	49.61	40.73	12.18	11.84	12.01	6.24	12.97	9.61	3.20	4.19	5.83
Watchdog	68.47	68.02	68.75	30.85	30.93	30.89	13.18	10.84	12.02	5.61	11.03	8.35	2.64	3.55	6.60
Scorpion	72.00	68.39	72.69	28.02	28.86	25.95	10.82	11.78	9.77	5.89	9.39	7.64	2.88	3.42	6.90
Bonsai	63.33	61.76	62.55	27.37	25.95	26.86	11.39	10.25	10.82	5.09	8.73	6.91	2.21	2.94	5.18
LSD @ 0.05	10.02	13.31	6.12	10.37	2.36	4.51	1.89	3.48	0.71	0.83	2.52	0.91	1.19	2.36	4.51

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	Awn Length (mm)	10 Seed Width (mm)			Seed Length (mm)			1000 Seed Wt. (mg)		
		2000	2001	Average	2000	2001	Average	2000	2001	Average
Falcon II	1.77	13.00	14.67	13.84	6.05	6.44	6.25	3130	2433	2782
Rebel II	1.73	14.00	13.50	13.75	6.09	5.84	5.96	3107	2667	2887
Renegade	1.63	13.00	15.67	14.34	5.66	6.49	6.07	2980	2467	2724
Talisman	1.26	12.50	15.33	13.92	5.91	6.69	6.30	2783	2367	2575
SR 8200	1.25	12.67	14.00	13.34	5.86	5.77	5.81	3117	2633	2875
Crossfire II	1.23	12.67	14.00	13.34	6.00	6.03	6.01	2940	2533	2737
Bonsai	1.23	11.33	12.67	12.00	5.96	5.90	5.93	2620	2300	2460
Falcon	1.22	13.67	14.33	14.00	6.05	6.10	6.08	3057	2500	2779
Wrangler	1.21	13.67	14.50	14.09	6.30	6.26	6.28	2903	2600	2752
Grande	1.19	13.00	14.17	13.59	5.92	6.18	6.05	2930	2700	2815
Crewcut	1.19	12.33	14.50	13.42	5.82	6.06	5.94	2597	2167	2382
Bonanza	1.14	13.37	13.33	13.35	6.03	5.94	5.99	3083	2700	2892
Lancer	1.14	12.83	13.67	13.25	6.03	6.25	6.14	2940	2433	2686
Shortstop	1.13	13.33	13.67	13.50	5.61	5.80	5.71	2717	2233	2475
Masterpiece	1.12	13.00	14.17	13.59	5.90	6.01	5.96	2863	2333	2598
Tomcat	1.11	12.50	13.83	13.17	5.93	5.87	5.90	2820	2533	2677
Silverado	1.11	12.83	14.00	13.42	5.57	6.50	6.04	2680	2233	2457
Pick RT-95	1.09	13.00	14.00	13.50	5.61	5.91	5.76	3043	2567	2805
Rebel Jr	1.08	13.33	15.33	14.33	5.54	6.33	5.94	2833	2667	2750
Mustang II	1.05	14.00	14.17	14.09	6.02	5.88	5.95	3023	2733	2878
Scorpion	1.05	13.17	13.83	13.50	6.02	5.54	5.78	3040	2733	2887
Rembrandt	1.04	12.67	13.67	13.17	5.71	5.90	5.81	2880	2567	2724
KY-31	1.04	14.00	13.67	13.84	6.20	5.91	6.06	3050	2800	2925
Pick MT3	1.03	12.00	13.83	12.92	5.73	5.95	5.84	2700	2567	2634
Shenandoah II	1.02	12.67	14.17	13.42	5.63	6.04	5.84	2947	2433	2690
Empress	1.01	13.00	14.50	13.75	5.80	6.52	6.16	2983	2500	2742
Tomahawk	1.00	13.83	13.33	13.58	5.81	6.00	5.91	2850	2433	2641
Watchdog	1.00	12.33	14.50	13.42	5.46	6.26	5.86	2697	2400	2548
Mini-Mustang	1.00	13.17	14.00	13.59	5.82	6.17	5.99	2557	1967	2262
LSD		0.13	0.99	1.13	0.33	0.37	0.31	291	348	

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) <i>South Carolina and S.C. Agriculture and Forestry Research System (BT 3/13/2009)</i>	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER <i>CU 9502T</i>	3. VARIETY NAME <i>Tomcat</i>
4. ADDRESS (Street and No., or P.O. Box No., City, State, and Zip, and Country) 104 Barre Hall Clemson, SC 29634	5. TELEPHONE (Include area code) <i>864-656-3140</i>	6. FAX (Include area code) <i>864-656-3779</i>
7. PVPO NUMBER <i>100200229</i>		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain

 YES

9. Is the applicant (individual or company) a U.S. National or a U.S. based company? If no, give name of country

 YES NO
10. Is the applicant the original owner? YES NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

 YES NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

 YES NO If no, give name of country

11. Additional explanation on ownership (if needed, use the reverse for extra space):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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